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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID P. KRAUS JR., DERRICK SLOWIKOWSKI,
ERNESTO S. TACHAUER, WILLIAM H. SHEPARD,
HOWARD A. KINGSFORD, PETER C. GARRIGUS, and
MICHAEL D. MURRY

Appeal 2014-007904¹²
Application 13/613,351³
Technology Center 3600

Before MICHELLE R. OSINSKI, JAMES A. WORTH, and
AMEE A. SHAH, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 32–43. We have jurisdiction under 35 U.S.C.

¹ Throughout this opinion, we refer to the Appellants' Appeal Brief ("Br.," filed Feb. 3, 2014) and Specification ("Spec.," filed Sept. 13, 2012), and the Examiner's Answer ("Ans.," mailed May 13, 2014) and Final Office Action ("Final Act.," mailed July 30, 2013).

² We note related appeals 2014-006953 (Application 12/420,267) and 2016-002344 (Application 13/613,601). Br. 1.

³ According to the Appellants, the real party in interest is Velcro Industries B.V. *Id.*

§ 6(b). The Appellants' representative appeared for oral hearing in this appeal on November 14, 2016 ("Hearing").⁴

We REVERSE.

STATEMENT OF THE CASE

The Appellants' invention "relates to securing exterior building construction materials, such as roof membranes and siding that are exposed to environmental forces such as wind and rain." Spec. 1, ll. 7–8.

Claims 32 and 41 are the independent claims on appeal. Claim 32 (Br. 17 (Claims App.)) is exemplary of the subject matter and is reproduced below (bracketing added for reference):

32. A roof comprising:

[(a)] a roof deck;

[(b)] underlayment comprising foam boards each fastened to the roof deck with discrete board fasteners each extending through one of the foam boards and into the roof deck, each foam board of the underlayment carrying a field of fastener elements extending across an exposed surface of the board; and

[(c)] a flexible roof membrane extending over the underlayment, the roof membrane comprising a water-impervious sheet with a field of fastener elements disposed on an underside thereof and engaged with the fastener elements of the foam boards to secure the roof membrane;

[(d)] wherein the discrete board fasteners each carry a field of fastener elements that releasably engage with the fastener elements of the roof membrane to secure to membrane to the fastener elements.

⁴ Throughout this opinion, we refer to the transcript of the Hearing ("Tr.").

REJECTIONS

Claims 32–41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watkins (US 4,450,663, iss. May 29, 1984), Saito (US 5,058,245, iss. Oct. 22, 1991), and Akins (US 2006/0123727 A1, pub. June 15, 2006). Final Act. 1.

Claims 42 and 43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watkins, Saito, Akins, and Chiu (US 4,855,172, iss. Aug. 8, 1989). *Id.* at 8.

FINDINGS OF FACT

The findings of fact in the Analysis section below are supported at least by a preponderance of the evidence.⁵

ANALYSIS

We are persuaded by the Appellants’ contention that the rejection of independent claim 32 is in error because “one of ordinary skill in the art would not have been led to the claimed invention, starting from Watkins, by a reasonable consideration of the teachings of Saito and Akins.” Br. 6; *see also* Tr. 11, l. 18 to 12, l. 10.

After careful review of the Examiner’s rejection and responses to the Appellants’ arguments, we agree with the Appellants that the Examiner’s combination of Watkins, Saito, and Akins is not adequately supported by articulated reasoning. *See* Br. 10–12; *see also* Tr. 12–13.

⁵ *See Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

The Examiner finds that Watkins teaches that fasteners/screws 30 extend through foam boards 3 and into roof deck 2. Final Act. 1; *see also* Watkins, Fig. 1. The Examiner also finds that Watkins discloses a flexible roof membrane, lamina 20, comprising a water-impervious sheet 35. *Id.* at 2. The Examiner relies on Saito to replace screws 30 of Watkins with fasteners that carry a field of fastener elements, “thereby comprising ‘a field of fastener elements extending across an exposed surface of the [foam] board.’” *Id.* at 3. The Examiner relies on Akins to affix hook and loop fastener elements on the underside of Watkins’ membrane/lamina 20 and/or water-impervious sheet 35 to engage the fasteners of Saito as applied to Watkins’ foam board 3. *See* Final Act. 3. The Examiner states that the proposed modification to Watkins’ membrane/lamina 20 to include the hook and loop fastener elements so as to replace Watkins’ adhesive would have been obvious “in order to engage the fasteners” of Saito. *Id.* The Examiner further appears to modify Watkins’ adhesive layer 36 between the lamina 20 and sheet 35 with hook and loop fasteners to “produce a roofing system having a removable, replaceable roofing membrane that would be easily replaced if it became punctured or damaged.” *Id.*

Figure 1 of Watkins is reproduced below.

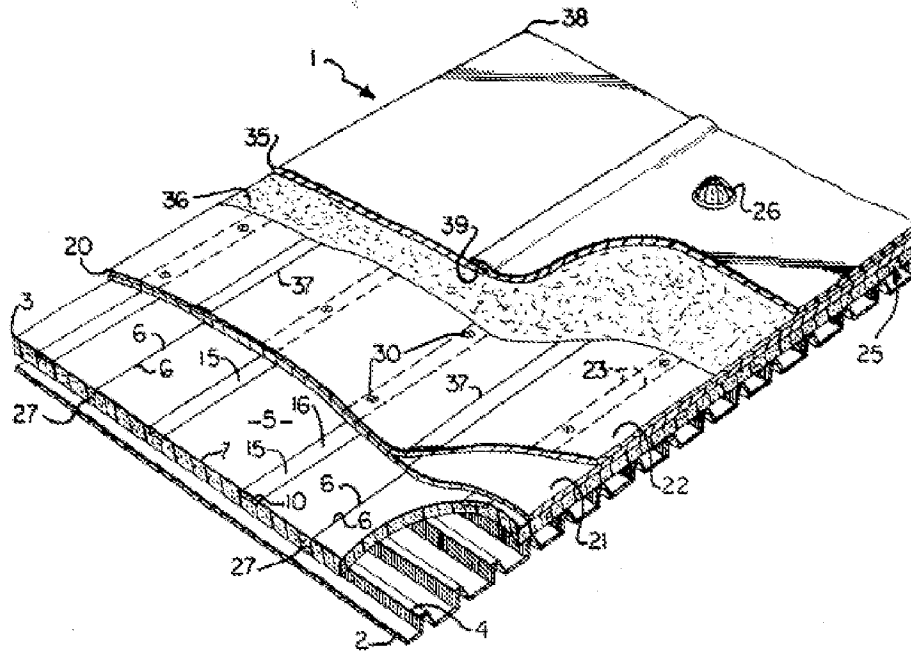


Figure 1 depicts Watkins' roofing system.

We find persuasive the Appellants’ argument that the Examiner’s reasoning is inadequate to arrive at the claimed inventions. *See* Br. 6 (“There is nothing in Watkins to suggest . . . providing each board (or the lamina) with a field of fastener elements extending across the board, along with providing the discrete board fasteners with respective fields of fastener elements that releasably engage with the roof membrane.”). The Examiner’s modification of adhesive layer 36 between sheet 35 and lamina 20 (membrane) would place fastener elements between the lamina (membrane) and sheet, not the foam board and lamina (membrane), as required by the claim. The Examiner’s modifications of Watkins’ foam board 3 to replace screws 30 with Saito’s fasteners having hook and loop fastening elements and the underside of the lamina 20 to have the hook and loop fasteners of Akins (*see* Final Act. 3) appears to be the result of impermissible hindsight. The Appellants argue persuasively that the Examiner’s conclusion of

obviousness lacks properly articulated reasoning with rational underpinning. *See* Br. 13. Therefore, we determine that the Examiner's conclusion fails to include adequate evidence and/or technical reasoning to explain why a person of ordinary skill in the art would replace Watkins' adhesive to pressure-bond the lamina to the foam board with Saito's and Akins' hook and loop fastener elements.

Thus, we do not sustain the rejection of independent claim 32 and dependent claims 33–40. Because independent claim 41 recites substantially similar limitations to independent claim 32, and the Examiner relies on the same reasoning as for claim 32 (Final Act. 6–8), we also do not sustain the rejections of claim 41 and dependent claims 42 and 43.

DECISION

The Examiner's rejections of claims 32–43 under 35 U.S.C. § 103(a) are REVERSED.

REVERSED